

This listing of the claims will replace all prior versions, and listings, of claims in the present application:

LISTING OF THE CLAIMS:

Claim 1 (Currently Amended) An interconnect structure comprising:

one or more interconnect levels, one on top of each other, each level comprising an organo-silicate glass (OSG) dielectric material having a plasma treated surface layer that provides improved adhesion to an overlying lower hardmask comprising a dielectric material, yet is substantially undamaged.

Claim 2 (Original) The interconnect structure of Claim 1 wherein the OSG dielectric material comprises a non-porous or porous material having a dielectric constant less than 3.

Claim 3 (Cancelled)

Claim 4 (Original) The interconnect structure of Claim 1 wherein the OSG dielectric material comprises a material of Si, C, O and H and having a dielectric constant less than about 3.

Claim 5 (Original) The interconnect structure of Claim 4 wherein the OSG dielectric material comprises about 10 to about 40 atomic (at.) % Si, about 10 to about 40 at. % C, about 15 to about 45 at. % O, and about 20 to about 50 at. % H.

Claim 6 (Original) The interconnect structure of Claim 1 further comprising a dielectric cap layer beneath said OSG dielectric material.

Claim 7 (Original) The interconnect structure of Claim 1 wherein the lower hardmask comprises a dielectric material of Si, C, O and H and having a dielectric constant less than about 5.

Claim 8 (Cancelled)

Claim 9 (Original) The interconnect structure of Claim 1 wherein the adhesion improved by greater than 15%.

Claim 10 (Original) The interconnect structure of Claim 1 further comprising an upper hardmask located atop said lower hardmask.

Claim 11 (Original) The interconnect structure of Claim 10 wherein said lower hardmask does not include a densified surface layer.

Claims 12-19 (Cancelled)

Claim 20 (New) An interconnect structure comprising:

one or more interconnect levels, one on top of each other, each level comprising an organo-silicate glass (OSG) dielectric material having a plasma treated surface layer that

provides improved adhesion to an overlying lower hardmask comprising a dielectric material, yet is substantially undamaged;

a dielectric cap layer beneath said OSG dielectric material; and

an upper hardmask located atop said lower hardmask,

wherein said OSG dielectric material has a dielectric constant less than about 3 and comprises a material of Si, C, O and H comprising about 10 to about 40 atomic (at.) % Si, about 10 to about 40 at. % C, about 15 to about 45 at. % O, and about 20 to about 50 at. % H,

wherein said lower hardmask comprises a dielectric material of Si, C, O and H and having a dielectric constant less than about 5,

wherein said lower hardmask does not include a densified surface layer, and

wherein said adhesion is improved by greater than 15%.